40. A zinc finger-nucleotide binding polypeptide variant produced by the method of claim 27.

41. A method for identifying a zinc finger-nucleotide binding polypeptide variant comprised of at least two zinc finger modules, which modulates the transcriptional function of a cellular nucleotide sequence and binds to a zinc finger-nucleotide binding motif, wherein the amino acid sequence of at least one zinc finger module that binds to a zinc finger nucleotide binding motif comprises two cysteines and two histidines whereby both cysteines are amino proximal to both histidines and wherein the at least one zinc finger module of said variant has at least one amino acid sequence modification, said method comprising:

a) incubating components comprising a nucleotide sequence encoding a putative modulating variant operably linked to a first inducible promoter, and a reporter gene operably linked to a second inducible promoter and a zinc finger-nucleotide binding motif, wherein the incubating is carried out under conditions sufficient to allow the components to interact; and

b) measuring the effect of the putative modulating variant on the expression of the reporter gene. --

REMARKS

Applicant respectfully requests entry of the present amendment prior to examination. Claim 1 has been canceled without prejudice and new claims 2-41 have been added to claim the invention with greater particularity. Support for the new claims can be found throughout the specification, and specifically on page 10, lines 16-24; page 11, lines 27-31; page 13, lines 4-12; page 14, line 11 bridging to page 15, line 9; page 28, lines 11-29; page 48, line 21, bridging to page 51, line 24, for example. On page 28, lines 11-17, for example, the specification specifically indicates that modification of at least one of the zinc finger modules of a zinc finger protein is sufficient for producing a zinc finger variant of the invention:

"In one embodiment of the invention, randomized nucleotide substitutions can be performed on the DNA encoding one or more fingers of a known zinc finger protein to obtain a derived polypeptide that

modifies gene expression upon binding to a site on the DNA containing the gene, such as a transcriptional control element. In addition to modifications in the amino acids making up the zinc finger, the zinc finger derived polypeptide can contain more or less than the full amount of fingers contained in the wild type protein from which it is derived. "

No new matter is added by the amendments presented herein.

CONCLUSION

In summary, for the reasons set forth herein, Applicants maintain that claims 2 to 41 clearly and patentably define the invention, respectfully request that the Examiner reconsider the various grounds set forth in the Office Action, and respectfully request the allowance of the claims which are now pending.

If the Examiner would like to discuss any of the issues raised in the Office Action, Applicant's representative can be reached at (858) 677-1456. Please charge any additional fees, or make any credits, to Deposit Account No. 07-1895.

Respectfully submitted,

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